

REMARKS

By this Amendment, claims 1 and 9 are amended merely to clarify the recited subject matter and new claims 16 and 17 are added to more fully claim the disclosed invention and are patentable for substantially the same reasons asserted herein with regard to the rejected claims 1-15. Claims 1-17 are pending.

The Office Action rejected claims 1-15 under the judicially created doctrine of obviousness-type double patenting over claims 1-13 of U.S. Patent No. 6,091,955.

Applicants overcome the rejection by the filing of the attached Terminal Disclaimer.

Claims 1-3 and 9-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujii et al. (EP 0531090; hereafter "Fujii") in view of Royer (U.S. Patent No. 5,506,869). In addition, claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujii in view of Royer and Kallin et al. (U.S. Patent No. 5,357,559; hereafter "Kallin"). Claims 5-6 and 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujii in view of Royer and Bruckert (U.S. Patent No. 5,038,399).

Applicants traverse the rejections because the cited prior art references, analyzed individually or in combination, fail to disclose, teach or suggest a cellular radio network including allocated radio frequencies reused in cells, including "at least one microcell wherein **all frequencies are super-reuse frequencies one of which is a BCCH frequency of the microcell**, . . ." as recited in independent claim 1 and its dependent claims 2-8. Similarly, the cited prior art fails to disclose, teach or suggest the claimed method for increasing traffic carrying capacity in a cellular radio system, comprising "allocating a regular frequency as a BCCH frequency in said some of the claims; providing at least one microcell **wherein all frequencies are super-reuse frequencies one of which is a BCCH frequency of the microcell**. . .," as recited in independent claim 9 and its dependent claims 10-15.

Fujii merely discloses a conventional "re-use partition" of cells in a mobile communication system, in which the same channel or the same frequency is re-used in cells in different clusters. However, there is no teaching or suggestion in Fujii of a microcell wherein all frequencies are super-reuse frequencies one of which is a BCCH frequency of the microcell.

Royer fails to remedy the deficiencies of Fujii because Royer merely discloses estimation of carrier-to-interference ratios of signals transmitted between cellular radio base stations and mobile units, wherein a SAT signal is transmitted from a base station to a mobile

unit served by that base station. The mobile unit receives the SAT signal and retransmits the received SAT signal to the base station. A first order autoregressive parameter is calculated for the received SAT signal at the base station is correlated with a tabulated carrier-to-interference ratio estimate to estimate the carrier-to-interference ratio of the signals.

Similarly, Kallin fails to remedy the deficiencies of both Fujii and Royer because Kallin merely discloses a cellular mobile radiotelephone system that listens for call accesses on a control channel of an umbrella cell and on a control channel of a microcell located within that umbrella cell and responds to the call access only on the control channel of the umbrella cell. More particularly, Kallin's microcells within a particular umbrella cell are provided with a listen-only control channel at the same frequency as the uplink control channel of the umbrella cell. During call access, the umbrella cell and each of the microcells determines the strength of the received signal and forwards this information to the system. Because there is only a single downlink control channel within the coverage area of an umbrella cell, excessive rescanning is avoided.

Further, Bruckert fails to remedy the deficiencies so Fujii, Royer and Kallin because Bruckert merely discloses a radio frequency communication system employing channelization, such as a cellular TDMA system, and having a plurality of reuse channel levels, such as multiple frequency reuse patterns, each level having at least one associated reuse channel. In Bruckert, the method and device determine the relative interference for a reuse channel of a first reuse level in relation to relative interference for a reuse channel of at least a second reuse level resulting in a reuse level gradient; subsequently, assignment of the subscriber unit to at least one reuse level is performed in response to the reuse level gradient.

Therefore, the claimed invention is patentable over the teachings of Fujii, Royer, Kallin and Bruckert, analyzed individually or in combination. Therefore, claims 1-15 are allowable.

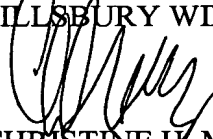
All objections and rejections having been addressed, Applicants request issuance of a notice of allowance indicating the allowability of all pending claims. If anything further is necessary to place the application in condition for allowance, Applicants request that the Examiner contact Applicants' undersigned representative at the telephone number listed below.

AALTO -- 09/480,173
Client/Matter: 060258-0258574

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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Attachment: Terminal Disclaimer